

Patent Claims:

1 1. Method for the positioning and fixing of a first component
2 (3) relative to a second component (23), in that following
3 method steps are carried out:

4 a) laying of the first and second components (3, 23) in
5 a first receiving device (22),

6 b) moving of the first receiving device (22) against a
7 second receiving device (24) or vice versa, whereby
8 the second receiving device (24) comprises a mounting
9 plate (1) and a clamping device (2), which are
10 arranged movably relative to each other, and
11 developing of a contact pressure between the two
12 receiving devices (22, 24) through the components (3,
13 23),

14 c) grasping of the first component (3) by means of the
15 clamping device (2) during the movement of the
16 mounting plate (1) due to the contact pressure, and
17 generation of a clamping movement for the positioning
18 and fixing of the first component (3) by means of at
19 least one transmission, which converts the movement of
20 the receiving device into the clamping movement.

1 2. Receiving device (24) for carrying out a method according
2 to patent claim 1, characterized in that the second
3 receiving device (24) comprises the following component
4 parts:

5 - the mounting plate (1),

- 6 - the clamping device (2), which comprises movably
7 supported clamping jaws (4), between which the first
8 component (3) is clamped-in, during the developing of
9 the contact pressure, whereby
10 - the clamping device (2) is movably connected with
11 the mounting plate (1) and
12 - the clamping device (2) and the mounting plate
13 (1) approach each other during the developing of
14 the contact pressure, and
15 - the transmission, especially wedge transmission, which
16 converts the movement between mounting plate (1) and
17 clamping device (2) into a clamping movement of the
18 clamping jaws (4).

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one guide pin (19) that is inserted obliquely between one clamping jaw (4) and the mounting plate (1) in an obliquely extending guide hole (20), with which the clamping jaw (4) is moved.

6. Receiving device (24) according to one of the patent claims 2 to 5, characterized in that the clamping device (2) consists of at least

- one contact plate (5), on which the component (3) to be clamped rests against,
- one clamping jaw (4), in which the component (3) is clamped, and
- one guide rail (6), on which the clamping jaw (4) moves along.

7. Receiving device (24) according to one of the patent claims 2 to 5, characterized in that the clamping device (2) consists of at least

- one guide rail (6), which forms a contact plate on which the component (3) to be clamped-in rests, and
- one clamping jaw (4) with which the plastic part (3) is clamped-in, and which moves along the guide rail (6).

8. Use for a method according to patent claim 1, characterized in that the receiving devices (22, 24) are used for vibrational friction welding, whereby the two components (3, 23) are rubbed against one another so long until the two components (3, 23) melt.

1 9. Use for a receiving device (24) according to patent claim
2 2, characterized in that the receiving device (24) is a
3 component part of a vibrational friction welding apparatus,
4 and the mounting plate (1) is connected with a vibration
5 unit.

1 10. Use for a method according to patent claim 1, characterized
2 in that the receiving devices (22, 24) are used for
3 vibrational or rotational welding, whereby the two
4 components (3, 23) are moved against each other so long
5 until the two components (3, 23) melt.

1 11. Use for a receiving device (24) according to patent claim
2 2, characterized in that the receiving device (24) is a
3 component part of a vibrational or rotational welding
4 apparatus, and the mounting plate (1) is connected with a
5 vibration or rotation unit.